

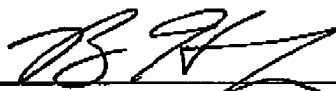
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Specifically, claim 1 has been replaced by claim 20 and incorporates features previously recited by claim 3. Claim 6 has been replaced by claim 23 and incorporates features previously recited by claims 7 and 8. Claim 14 has been replaced by claim 24 and incorporates features previously recited by claim 15.

Applicants respectfully submit that the claims, as amended, are allowable over the cited art of record and request that the application be passed to issue. The Examiner is invited to directly contact the undersigned in order to advance the prosecution of this case.

Respectfully submitted,
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VERSION WITH MARKINGS TO SHOW CHANGES MADE

2. (Amended) The system of claim [1] 20, wherein the resource is a memory controller for controlling access to a memory using a memory clock and a clock enable signal and the system further comprises:

circuitry for disabling the clock enable signal if the estimated total bandwidth utilization for the controllers accessing the memory controller is zero;
and
circuitry for disabling the memory clock responsive to the disabling of the clock enable signal.

4. (Amended) The system of claim [1] 20, wherein the circuitry for dynamically and automatically selecting one of the plurality of clocks for the resource responsive to the estimated total bandwidth utilization comprises:

a multiplexer having a plurality of inputs for receiving the plurality of clocks [generated by the circuitry for generating a plurality of clocks] and a selection input for receiving a selection value determined in response to the estimated total bandwidth utilized by the zero or more controllers accessing the resource.

9. (Amended) The portable electronic device of claim [8] 23, further comprising:
a frequency table having entries describing clock frequencies for a resource in the portable electronic device, wherein the sum produced by the [adder] clock controller is an index to an entry in the frequency table.

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10. (Amended) The portable electronic device of claim [8] 23, wherein the clock controller further comprises:

a multiplexer for receiving the plurality of clocks generated by the clock generator and outputting a clock selected responsive to the sum [produced by the adder] of the register values.

11. (Amended) The portable electronic device of claim [10] 23, further comprising circuitry for applying the selected clock to the resource.

12. (Amended) The portable electronic device of claim [8] 23, wherein [the] there are a plurality of resources [comprise] comprising:

a bus for transferring information among ones of the plurality of controllers in communication with the bus;

a memory controller in communication with the bus for controlling access to at least one external memory device by ones of the plurality of controllers; and

a central processing unit controller in communication with the bus for controlling accesses to a central processing unit by ones of the plurality of controllers.

17. (Amended) The method of claim [14] 24, wherein the resource is a memory controller and the determining step determines that zero controllers are accessing the memory controller, further comprising the steps of:

disabling a clock enable signal from the memory controller; and
disabling a clock to the memory controller.

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